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Seismicity of the south of the Russian Far East in 2023

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Abstract. The paper presents an overview of the seismicity of the southern part of the Russian Far East in 2023 based on the data from the catalog of the "Yuzhno-Sakhalinsk" Regional Information Processing Center (RIPC) of the Sakhalin Branch of the Federal Research Center "United Geophysical Survey of the Russian Academy of Sciences" (SB FRC UGS RAS). The main parameters of seismicity, such as maps of earthquake epicenters and their macroseismic events, the statistical estimation of the seismicity level (SESL'09), Benioff graphs, and density maps of nominal elastic deformation in 2023 in comparison with the previous longer time interval, are given. A brief analysis of the most significant and interesting earthquakes for detailed study is given. The seismicity of the Kuril-Okhotsk, Sakhalin, and Amur and Primorye regions remained moderate during the year, within the background values. The strongest earthquake with Mw = 6.4 occurred in the southern part of the Kuril Island arc.

Keywords:
earthquakes, seismicity, seismic activity,
Amur region, Primorye, Sakhalin, Kuril-Okhotsk region

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